

Liou, Li-Wei (Welly)

+886 960714658 welly70114@gmail.com
Website: wellyowo.github.io GitHub: github.com/wellyowo

PROFESSIONAL SUMMARY

- **NYCU Master of Electrical & Control Engineering** specializing in robotics system integration.
- **Core Expertise:** Human-Robot Collaboration, VR Teleoperation, LLM-based Task Planning.
- **Technical Skills:** ROS/ROS2, Unity/Gazebo, VR/AR, Behavior Trees.
- **Proven Success:** 3rd Place Winner, RobotX 2022; Collaborations with International University.

EDUCATION

Master of Engineering, Institute of Electrical and Control Engineering Sep 2022 – Oct 2024
National Yang Ming Chiao Tung University (NYCU) Hsinchu, Taiwan

Bachelor of Interdisciplinary Program of Electrical Engineering & Computer Science Sep 2017 – Jun 2022
National Central University (NCU) Taoyuan, Taiwan

RESEARCH & PROJECT EXPERIENCE

Research Assistant — Human-Robot Cooperation Lab Oct 2024 – Jan 2025
National Tsing Hua University (NTHU) Hsinchu, Taiwan

- Developing and integrating open-source robotic arms (Koch) and mobile manipulators (Stretch3).
- Implementing and researching human-robot collaborative tasks using the ROS2 framework.

Master Degree — Assistive Robotics Group Lab Sep 2022 – Oct 2024
National Yang Ming Chiao Tung University (NYCU) Hsinchu, Taiwan

- **Thesis of AI-Copilot for Aerial Manipulation:** VR teleoperator cooperate with LLM generated BT copilot for aerial manipulation task.
- **Advanced Teleoperation Research (UGV & Mobile Manipulators):** Run teleoperation projects by collaborating with both international (George Mason University) and domestic (5G Network Lab) partners. Validated low-latency, high-immersion control with across the globe VPN.

System Integration Team Member — RobotX 2022 Competition (3rd Place Winner) Dec 2022
Unmanned Surface Vehicles Team Sydney, Australia

- Owned the integration of a Hyperspectral Imaging (HSI) camera into the ROS network.

TECHNICAL SKILLS

Programming Languages:	Python, C++, C#
Robotics & Simulation:	ROS/ROS2, Gazebo, VR, Behavior Trees, Teleoperation
Dev Tools & Platforms:	Linux (Ubuntu), Git, Docker

PUBLICATIONS

Third Author, "An Evaluation Framework of Human-Robot Teaming for Navigation among Movable Obstacles via Virtual Reality-based Interactions," 2024 *IEEE Robotics and Automation Letters (RAL)*.